

6.5, stand at 3-5°C for 20-30 hours, and centrifuge at high speed for 20-30 minutes. The supernatant is ultrafiltrated, followed by 0.22µm membrane filtration to eliminate bacteria and lyophilization. This is crude IgY extract against dental caries.--

Please replace the paragraph beginning at page 3, line 1, with the following rewritten paragraph:

--Obtained eluates are applied on Sephadex G200 column, and eluted with phosphate buffer containing 0.05-0.2M of NaCl by gradient elution followed by pouring protein peaks, estimating antibody activity with "ELISA", eliminating bacteria by 0.22µm membrane filtration, and lyophilizing. This is purified IgY against dental caries bacteria.--

Please replace the paragraph beginning at page 5, line 19, with the following rewritten paragraph:

--Three milliliter (10 mg/ml) of crude IgY extract are applied on "DEAE-Sephadex A50" column (2.5x35cm), eluted with pH 7.0, 0.01M of phosphate buffer containing 0.07M of NaCl, 20ml/h. 5.0ml each fraction. The protein peaks are poured. Antibody activity are estimated with "ELISA". Active eluates are poured. Adjusted to 20mg protein/ml. Then, 1.5ml of it is applied on "Sephadex G200" column (2.0x65cm) and eluted with pH 7.0, 0.01M of phosphate buffer containing 0.1M of NaCl, 8.0ml/h. 5.0ml each fraction. The protein peaks are poured and estimated for antibody activity with "ELISA". Active eluates are poured, bacteria-eliminated with 0.22µm membrane filtration, and then lyophilized. This is purified IgY against dental caries bacteria.--

Please replace the paragraph beginning at page 6, line 1, with the following rewritten paragraph:

--Sample 2 Streptococcus mutans type c and type d are separately cultivated in TTY medium at 37°C for 48 hours, collected by centrifugation at 4000 rpm for 10 minutes, washed with pH 6.5, 0.15M of phosphate buffered saline 5 times, and heated at 65°C for 25 minutes. Then, make type c and type d suspensions,  $2 \times 10^9$ /ml each. Mix 2:1 volumes of type c and type d suspensions to get mixture ( $2 \times 10^9$ /ml) of them. Add Freund's adjuvant equal to the volume of the mixture. Treat it with high speed homogenize machine to get streptococcus mutans antigens.--